1. (canceled)

2. (currently amended) <u>A method of transmitting data packets comprising:</u>

       <u>identifying a priority of each packet of a plurality of packets to be</u>

<u>transmitted;</u>

       <u>selectively transmitting higher priority packets before transmitting</u>

<u>lower priority packets of the plurality of packets;</u>

       <u>receiving the transmitted packets;</u>

       <u>smoothing the received data packets; and</u>

       <u>playing-out the smoothed packets,</u>

       <u>wherein, the step of selectively transmitting is performed by</u>

<u>calculating a probability of higher priority packets being delivered prior to play-out</u>

<u>times for the higher priority packets and transmitting a packet only if this probability</u>

<u>is greater than a set threshold</u>

       <u>the method comprising the additional step of:</u>

~~The method of transmitting data packets of claim 1, further comprising:~~

       determining whether sufficient time remains before a scheduled play-out

time of a previously not transmitted packet and, if so, transmitting the previously

skipped packet.

3. (canceled)

4. (canceled)

5. (canceled)

6. (canceled

7. (canceled)

8. (canceled)

9. (currently amended) <u>A method of transmitting data packets comprising:</u>

<u>identifying a priority of each packet of a plurality of packets to be</u>
<u>transmitted;</u>

<u>selectively transmitting higher priority packets before transmitting</u>
<u>lower priority packets of the plurality of packets;</u>

<u>receiving the transmitted packets;</u>

<u>smoothing the received data packets; and</u>

<u>playing-out the smoothed packets,</u>

wherein, the step of selectively transmitting is performed by calculating a

probability of higher priority packets being delivered prior to play-out times for the

higher priority packets ~~The method of data packet transmission of claim 1,~~

~~wherein calculating a probability of higher priority packets being delivered prior to~~

~~play-out times for the higher priority packets~~ is performed by estimating the

success probability that a first data packet of the plurality of data packets will be

delivered before the play-out time for the first data packet <u>and transmitting a</u>

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packet only if this probability is greater than a set threshold .

10. (canceled)

11. (currently amended) A method of transmitting data packets comprising:

identifying a priority of each packet of a plurality of packets to be transmitted;

selectively transmitting higher priority packets before transmitting lower priority packets of the plurality of packets;

receiving the transmitted packets;

smoothing the received data packets; and

playing-out the smoothed packets,

wherein, the step of selectively transmitting is performed by calculating a probability of higher priority packets being delivered prior to play-out times for the higher priority packets and transmitting a packet only if this probability is greater than a set threshold, and further wherein the data is transmitted in mini-slots and the step of

The method of data packet transmission of claim 10, wherein calculating a probability of higher priority packets being delivered prior to play-out times for the higher priority packets is performed at an end of every mini-slot to determine whether to transmit data in a next mini-slot.

12. (previously presented) The method of data packet transmission of claim 11,

wherein the plurality of data packets are video data packets.

13. (canceled)

14. (canceled)

15. (canceled)

16. (canceled)

17. (canceled)

18. (canceled)

19. A system for data packet transmission, the system comprising:

a central transmission unit including a unit controller coupled to a unit

buffer and a unit transceiver, the unit buffer also being coupled to the unit

transceiver, the unit buffer storing a plurality of data packets for selective

transmission by the unit transceiver;

a transmission channel that carries the plurality of data packets

transmitted by the unit transceiver,

wherein, the unit controller controls selective transmission of the plurality of

data packets from the unit transceiver along the transmission channel to client

equipment and ~~The system for data packet transmission of claim 13, wherein the unit controller~~ determines whether sufficient time remains before a scheduled play-out time of a previously not transmitted packet and, if so, controls the unit transceiver and unit buffer to transmit the previously skipped packet.

20. (canceled)

21. (canceled)

22. (canceled)

23. (canceled)